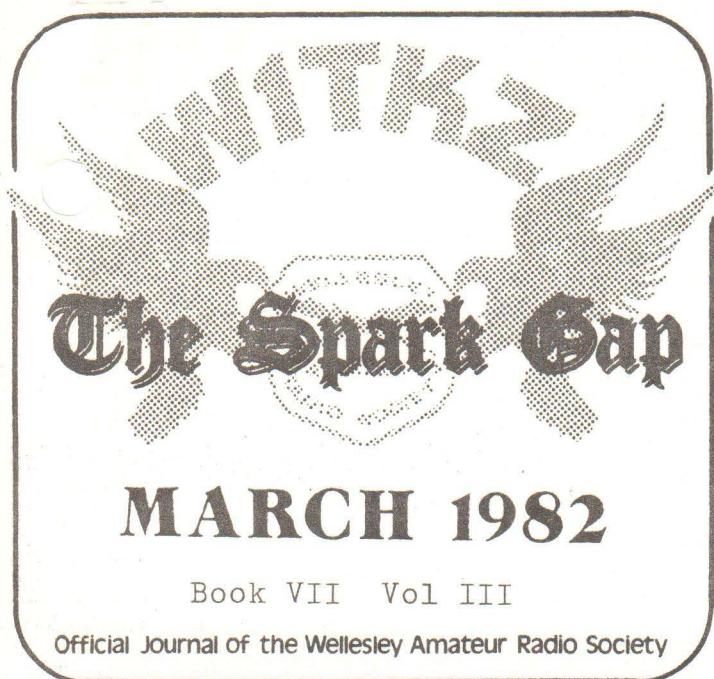




Hearabouts....

March is a pretty quiet month on the club calendar but after March, look out! April will bring the club's annual auction which in addition to being a fair amount of work is also a lot of fun for all involved. Plan on signing up to help during the auction on April 17 as many hands make the work light. Also you might start looking around the shack for any old "junk" that you might want to unload at the auction to make some elbow room. If your shack's like mine, it could probably use a good going over and a number of saleable items would surface in the process. The more items we have to sell the better the auction will be, so before time runs out why not do some cleaning out.

April is also the month of the BAA Marathon and we need the names of all who plan to participate now in order to make advanced planning possible. This is the event that puts us most in the public eye, so we certainly want to put out best foot forward and we should be able to do this with everyone's help. If you want to participate contact Dick Paret, WA1ZLQ, at 762-5074 as soon as possible. □

As advertised, the February 18th meeting program was a presentation of slides from the January VHF Sweepstakes and the Natick Mall. In addition, we had a very interesting presentation of the Experimental Aircraft Association airshow last summer in Oshkosh, Wis. courtesy of C.J. McDonald, WB1BUM. His slides and descriptions covered aircraft dating from the beginning of the century right to the latest supersonic military aircraft, plus many rather strange homemade type craft. All in all a very interesting presentation.

Anyone who has any preferences on a Field Day location for this summer, the time is here to let your feelings be known. Field Day is only three months away and the final decision on the site must be made in the near future. Any original ideas out there?

We are considering holding a spring Novice class if there is enough interest. We already have some inquiries, but could use a few more students if we are to make a go of it. If you know of anyone who would be interested, please notify Nels Anderson, K1UR, at 323-5029 as soon as possible.

Don't forget if your ARRL dues are in need of renewing, send your dues in through W.A.R.S. and we get to keep part for the club treasury. Send your ARRL renewals to C.J. McDonald, WB1BUM, 48 Hale Street, Newton, Mass. 02164. □

ANNOUNCEMENT

It is time to start thinking about officers for the 1982/83 club year. Nomination of officers will be held at the March 4 meeting, with elections to be held at the May 20 meeting. You may make nominations by mail, by sending them to C.J. McDonald, WB1BUM, 48 Hale Street, Newton, Mass. 02164. □

MEETINGS THIS MONTH: _____

March 4, 1982, at 7:30 pm

March 18, 1982, at 7:30 pm

Intermediate Bldg., Wellesley Hills, Mass.

FROM THE MAILBAG



Pete Bradley, N1ADX/G4KJZ, who is a frequent contributor to the Spark Gap has compiled a book of humorous articles related to Amateur Radio. Many of the articles were written by Pete himself and first appeared in the Spark Gap but there are others by various authors that he has collected. Fine work Pete!

For those of you who don't know Pete, he is a cell biologist who is involved in graduate research studies at Worcester Polytechnic Institute and has published several scientific research papers in addition to his humorous writing. He is also a technical advisor to the American Radio Relay League on the biological effects of radio frequency energy. □

OFFICIAL BULLETIN

Number 17, dated February 2, 1982:

The Fourth Anniversary of AMSAT OSCAR 8 on 5 March 1982 will be commemorated with a black and white glossy photograph of OSCAR 8, to those who send information of a two way QSO via OSCAR 8. QSLs are not required. The participation period will be the entire month of March. Send a 5 x 7 SASE. The OSCAR 8 QSL card continues to be available for reports of telemetry. Send your requests to OSCAR 8 Fourth Anniversary, ARRL Club and Training Dept., 225 Main Street, Newington, Conn. 06111.

Number 19, dated February 11, 1982:

FCC today adopted a combined Notice of Proposed Rulemaking and Notice of Inquiry on the subject of HF phone band expansion. The Commission proposes expansion of the 14 MHz phone band by 50 kHz, from 14.150 to 14.350 MHz, with the new segment to be available equally to licensees of General class and higher. There would be no change to the segment 14.200 to 14.275

MHz, which would continue to be available only to Advanced and Extra class. In its Notice of Inquiry, FCC requests comments on several issues relating to phone subbands, among them the desirability of expanding other phone band, and the proper relationship between frequency and mode privileges and license class. Amateurs wishing to comment should wait until a Docket number has been assigned and the actual document has been released. Sufficient time will be provided for comments after the details are published. QST will carry the details as soon as they are available. □

NEW CLUB MEMBERS

We've been a little slack in running this department of the Spark Gap so we have a little catching up to do. We would like to welcome the following new members of the Wellesley Amateur Radio Society: John Bernardo, WA2YHV, of Wellesley; John Taylor, KA2KUJ, of Needham; Nicholas Finamore of Sudbury who recently took his Novice exam and should be getting his call shortly; and finally Philip Savage of Newton. We're looking forward to seeing you at the club meetings and hope you will take part in many of the activities the club has to offer. □

OFFICERS

PRESIDENT:

David Curry, K1TK, 756-5325

VICE PRESIDENT:

Dick Paret, WA1ZLQ, 762-5074

TREASURER:

C.J. McDonald, WB1BUM, 332-6091

RECORDING SECRETARY:

Nels Anderson, K1UR, 323-5029

FUND RAISING:

Kevin Kelly, WA1YHV, 242-0341

OPERATING ACTIVITIES:

David Kent, N2AWG, 756-5325

The Spark Gap

Official Journal of the Wellesley Amateur Radio Society



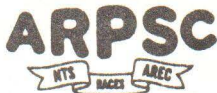
EDITOR-IN-CHIEF:

NELS J. ANDERSON, K1UR
32 WESTGATE ROAD, APT. 6
CHESTNUT HILL, MASS. 02167
323-5029

THE "SPARK GAP" IS A MONTHLY PUBLICATION OF THE WELLESLEY AMATEUR RADIO SOCIETY. ITS PRIMARY PURPOSE IS TO KEEP ITS MEMBERS ABREAST OF CURRENT HAPPENINGS, F.C.C. RULES & REGULATIONS CHANGES, AND TO LIST EQUIPMENT OFFERED FOR SALE OR TRADE BY MEMBERS. MEMBERS ARE ENCOURAGED TO CONTRIBUTE TO THE "SPARK GAP" AND MAY SENT THEIR ARTICLES (TYPEWRITTEN IF POSSIBLE) TO THE EDITOR-IN-CHIEF OR TO THE CLUB ADDRESS.

THE WELLESLEY AMATEUR RADIO SOCIETY IS A NON-PROFIT ORGANIZATION DEDICATED TO THE PROMOTION OF AMATEUR RADIO THROUGH INSTRUCTION, FELLOWSHIP, DEMONSTRATION, AND ENCOURAGEMENT OF PARTICIPATION. ANNUAL MEMBERSHIP IN THE SOCIETY IS \$8. THE CLUB YEAR RUNS SEPTEMBER 1 TO AUGUST 31. AMATEUR NOVICE AND GENERAL CLASSES ARE CONDUCTED REGULARLY AT NO COST. TO ENROLL IN A CLASS, OR GAIN INFORMATION ABOUT THE SOCIETY IN GENERAL, WRITE:

THE WELLESLEY AMATEUR RADIO SOCIETY
324 WASHINGTON STREET
WELLESLEY HILLS, MASS. 02181



Minutes

Meeting of February 4, 1982:

The meeting was opened at 7:44 pm by President David Curry, K1TK.

The secretary's report was read.

The treasurer's report was read. We now have fifty paid up members. The treasurer also announced that he intends to give a semi-annual report on the budget at the next business meeting.

The purchase of the Touch-Tone decoder described in QST has been put off as they will not sell us just the portion that we need and the total unit is rather expensive.

Kevin Kelly, WA1YHV, gave a report the auction preparations. Notices have gone out to the magazines and fliers will be available with the March Spark Gap.

A general discussion on what to do about future Novice classes was held. The low number signing up for the past few classes and the very high drop out rate were mentioned as causes of concern. Suggestions were made about some sort of charge for the classes to help insure a serious interest in those who sign up. It was argued, however, that we don't want to discourage any one by the course fee. One suggestion was to charge but to have most of the charge go towards the course materials and to offer a year's club membership of graduation.

The BAA Marathon meetings will be starting this month and Dick Paret, WA1ZLQ, will attend.

The meeting was closed at 8:58 pm. □

Auctions / Flea Markets

March 13: Interstate Repeater Society flea market at the Hilton Hotel, Exit 8 off the F.E. Everett Turnpike in Merrimack, N.H. Tables \$10 in advance, \$15 at the door. Admission is \$1.00. Set up at 7:30 am, doors open at 9:00 until 4:00 pm. Talk-in on 146.25/85. Food available. For more information, contact Dennis Blanchard at 603-329-5465.

April 17: Our own W.A.R.S. auction at Wellesley High School, from 11:00 am on, check-in at 10:00.

April 18: Minute Man Repeater Association flea market at Marlboro Junior High School. Doors open at 10:00 am.

April 25: South Shore Amateur Radio Club indoor flea market at the Viking Club, 410 Quincy Qvenue, Braintree. Doors open from 11:00 am until 4:00 pm with light refreshments available. \$1.00 admission.

May 2: NEAT television group flea market, Freeport Hall, Dorchester.

May 8: Hoss Traders tailgate swapfest, Deerfield, N.H.

May 15: 76 flea market and auction, Greenville, R.I.

May 16: Eastern Amateur Radio Association flea market and auction, Webster, Mass. □

by Dave Upton, WB1CMG
--via "GLARF Beam"

Test equipment that the beginning trouble-shooter should have on hand is very simple. Most work will involve the use of a VTVM/VOM. There are very few tests a VTVM can perform that a VOM cannot. A person beginning some digital trouble-shooting should acquire a good logic probe. The more advanced trouble-shooter should equip himself for alignment work and this translates into AF and RF generators, frequency counters, attenuators, and AF and RF VTVMs. The advanced digital hobbyist should consider a dual-trace oscilloscope.

As one becomes more and more involved, specialized equipment for different work areas is needed. Note that for 95% of your work, specialized equipment will allow you to do the job faster, but not necessarily better. Of course, some procedures are so tedious with simple equipment that you will soon seek a better method. The trouble shooter eventually buys and uses so much equipment that he begins to understand how to evaluate specifications on commercial equipment with his gear. At this point, the hobbyist has been transformed into a professional calibre technician, able to set up and evaluate many different devices and homebrew/commercial equipment.

An introductory article like this should conclude with a mention of what not to do to avoid trouble. There is nothing so disheartening or disagreeable to any competent serviceman as to straighten out an electronic mess caused by inexperienced personnel.

DON'T - adjust variable coils or capacitors without proper test equipment.

DON'T - dig into a circuit immediately, study the circuit first.

NEVER - trust the power switch to assure equipment is off. Always pull the plug out.

DON'T - try to defeat safety inter-

locks on potentially lethal equipment
such as linear amps, TVs, etc.

ALWAYS - discharge large filter caps in tube-type equipment with an insulated metal rod or screwdriver after equipment is off. Don't rely on bleeder resistors to safely bleed the charge off.

ALWAYS - make voltage and current measurements by starting at the highest scale and switching down.

NEVER - try to measure resistance with the power on. You will be out one VOM/VTVM.

BEWARE - of "difference of potential" between test equipment and units under test.

ALWAYS - make sketches of parts to be replaced so you can come back to it later.

ABANDON - old tube equipment tricks like shorting grids to ground when working with solid-state equipment.

In most applications, suspect tubes first and transistors last. ICs and FETs fall somewhere in between.

When in doubt about a circuit or procedure, ask someone. Don't forge on in ignorance.

Don't pass up chances to buy component manuals. They are extremely useful.

Don't replace burnt parts without first checking why they overheated. □

hr REPORT

On January 4 the FCC began issuing the new General Radiotelephone license to replace the 1st and 2nd class phone licenses which were discontinued last year. The order initiating the change came last August but could not be implemented until new license forms had been printed. Current holders of 1st or 2nd class tickets should note that they are valid until expiration, but when renewed they will become General Radiotelephone licenses. All new licenses will be of that class as well. Thanks W5YI.

hr Report, January 29, 1982

CROSSBANDER

An emergency session of the Radio Amateur Interstate Weather Net (RAIN) was activated on January 13, 1982, when heavy snow fell over much of New England. At the request of WBZ meteorologist Bruce Schwoegler, liaison was provided with the WBZ studios for three hours. Schwoegler used RAIN weather reports for the evening news and several "spots" crediting RAIN for the information.

RAIN held four emergency sessions during 1981. In existence for 18 months, the net meets each evening at 6:00 pm on the Westboro 144.67/145.27 repeater.

Stories about the Air Force's new over-the-horizon (OTH) radar installation near Moscow, Maine, are generating concern and possible misconceptions among Amateurs. Popular ham news sources have recently featured items about the high frequency 1.2 megawatt system, which completed its final test phase in 1981 and will become fully operational in 1983.

What has not been mentioned is that the OTH experimental system did not operate on frequencies allocated to the Amateur Radio service, and it has been confirmed by Air Force personnel that future OTH operations will not be conducted on any Amateur Radio frequencies.

Frequency changes for traffic nets: The Eastern Mass/Rhode Island Phone net has moved from 3.898 to 3.949 MHz. This change was made because 3.896 is a recognized AM calling frequency. Also, the Eastern Mass Two Meter Net, which formerly met on the Weymouth 147.90/30 repeater, now meets on the Boston 144.63/145.23 repeater. Both changes went into effect on February 1, 1982.

The Crossbander is a newsletter written especially for Eastern Massachusetts Radio Amateurs. The current issue of which the above is only a small part, contains eight pages of information that no one should be

without. At only \$5.00 per year, the Crossbander is quite a bargain. Send your subscription payment to Rick Beebe, K1PAD, 6 Tracy Circle, Billerica, Mass. 01821. ☐

OFFICIAL BULLETIN

Number 21, dated February 18, 1982:

FCC has assigned Docket number 82-83 to a combined Notice of Proposed Rule-making and Notice of Inquiry on the subject of HF phone band expansion. The Commission proposes expansion of the 14 MHz phone band by 50 kHz, from 14.150 to 14.350 MHz, with the new segment to be available equally to licensees of General class and higher. There would be no change to the segment 14.200 to 14.275, which would continue to be available only to Advanced and Extra class. In its Notice of Inquiry, FCC requests comment on several issues relating to phone sub-bands, among them the desirability of expanding other phone bands and proper relationship between frequency and mode privileges and license class. Amateurs have until July 1 to send their comments to the Secretary, FCC, Washington, DC 20554. Comments should be labeled with Docket Number 82-83. Reply comments are due August 2. QST will carry details. ☐

EVENTS

Erik Thoresen, K1OGF, advises us of the next two meetings of the Society of Broadcast Engineers which might be of interest to club members. On Tuesday, March 16, there will be a talk on the design of FM antenna systems, directional FM, and basic propagation theory to be held at the WCVB studios in Needham. Also on Tuesday, April 20, there will be a factory tour and design talk at Amperex in Slatersville, R.I. Further information from Dave Underhill at WCVB (449-0400). ☐

The Spark Gap



**WELLESLEY
AMATEUR RADIO
SOCIETY**

324 Washington Street
Wellesley Hills, Massachusetts 02181

FIRST CLASS MAIL